

Amendments to the Specification

Please amend the specification as follows:

Please replace paragraph number [0056] with the following re-written paragraph:

[0056] The methods provided herein may be used to functionalize and attach biomolecules to a wide variety of carbon-containing substrates. One class of substrates that may be treated with the methods is polymeric substrates. These include polymeric substrates conventionally used to immobilize biomolecules, such as polycarbonate, polymethyl methacrylate and polystyrene substrates, including polystyrene microspheres. Polystyrene substrates are useful because they are inexpensive and may be processed to have a wide range of optical characteristics. Polycarbonate substrates are inexpensive, have high optical clarity and can have good impact strength. The methods may also be used to functionalize inert polymeric substrates, such as acetal, polyethylene, polypropylene, ~~polyester~~-polyethylene terephthalate (PET) and polytetrafluoroethylene (PTFE) substrates, that cannot be functionalized efficiently with conventional wet chemistry approaches. These inert polymeric substrates may be functionalized in accordance with the present methods without pre-oxidation or irradiation. The polymeric substrates may be thin, flexible and/or transparent substrates.